

CLAIMS

1. A method of manufacturing a surface acoustic wave device having a resist applied on a piezoelectric substrate, a template having a desirable recess and protrusion patterns formed on the surface thereof is pressed to the resist on the piezoelectric substrate so as to form the resist groove pattern, and an electrode film pattern is formed based on the resist groove pattern.
2. A method of manufacturing a surface acoustic wave device as claimed in claim 1, wherein the electrode film pattern is formed by depositing the electrode film and then removing a part of the electrode film together with the resist groove pattern by lift-off method.
3. A method of manufacturing a surface acoustic wave device as claimed in claim 1, wherein the electrode is deposited previously to the applying of the resist, and the electrode film pattern is formed by patterning the electrode film.
4. A method of manufacturing a surface acoustic wave device as claimed in claim 1, wherein the template is made of at least one material selected from a group containing silicon, silicon dioxide film, silicon glass, a sapphire, sapphire glass, polymeric resin, invar and kovar.
5. A method of manufacturing a surface acoustic wave device as claimed in claim 1, wherein the recess and protrusion pattern is formed on the template by lithography using the electronic beam exposure.
6. A method of manufacturing a surface acoustic wave device as claimed in claim 1, wherein an organic polymer thin film having a hydrophobic group is formed on the surface of the template.
7. A method of manufacturing a surface acoustic wave device as claimed in claim 1 wherein, after forming the resist groove pattern, an ashing process is carried out for the resist groove pattern.

8. A method of manufacturing a surface acoustic wave device as claimed in claim 1, wherein the electrode width of the electrode film pattern is less than 0.4 μ m.

9. A method of manufacturing a semiconductor device by applying a resist on a substrate, and

a template having a desirable recess and protrusion patterns formed on the surface thereof is pressed to the resist on the substrate so as to form the resist groove pattern.